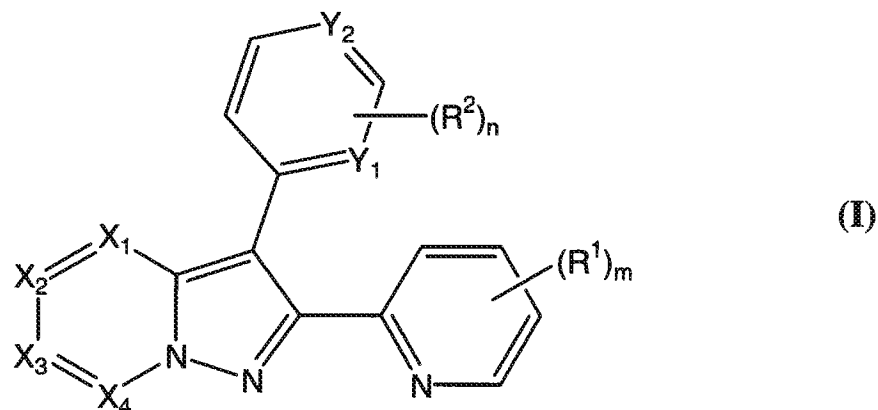


## Amended claims

What is claimed is:

1. (Previously presented) A compound of the following formula:



wherein

each of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  is independently  $CR^x$  or N; provided that only two of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  can be N simultaneously;

each of  $Y_1$  and  $Y_2$  is independently  $CR^y$  or N; provided that at least one of  $Y_1$  and  $Y_2$  must be N;

each  $R^1$  is independently alkyl, alkenyl, alkynyl, alkoxy, acyl, halo, hydroxy, amino, nitro, cyano, guanadino, amidino, carboxy, sulfo, mercapto, alkylsulfanyl, alkylsulfanyl, alkylsulfonyl, aminocarbonyl, alkylcarbonylamino, alkylsulfonylamino, alkoxy carbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, carbamoyl, cycloalkyl, cycloalkyloxy, cycloalkylsulfanyl, heterocycloalkyl, heterocycloalkyloxy, heterocycloalkylsulfanyl, aryl, aryloxy, arylsulfanyl, aroyl, heteroaryl, heteroaryloxy, heteroaryl sulfanyl, or heteroaryl;

each  $R^2$  is independently alkyl, alkenyl, alkynyl, acyl, halo, hydroxy,  $-NH_2$ ,  $-NH(alkyl)$ ,  $-N(alkyl)_2$ ,  $-NH(cycloalkyl)$ ,  $-N(alkyl)(cycloalkyl)$ ,  $-NH(heterocycloalkyl)$ ,  $-NH(heteroaryl)$ ,  $-NH-alkyl-heterocycloalkyl$ ,  $-NH-alkyl-heteroaryl$ ,  $-NH(aralkyl)$ , cycloalkyl, (cycloalkyl)alkyl, aryl, aralkyl, aroyl, heterocycloalkyl, (heterocycloalkyl)alkyl, heteroaryl, heteroaralkyl, heteroaroyl, nitro, cyano, guanadino, amidino, carboxy, sulfo, mercapto, alkoxy, cycloalkyloxy, cycloalkyl-alkoxy, aryloxy, arylalkoxy, heterocycloalkyloxy, (heterocycloalkyl)alkoxy, heteroaryloxy,

heteroarylalkoxy, alkylsulfanyl, cycloalkylsulfanyl, (cycloalkyl)alkylsulfanyl, arylsulfanyl, aralkylsulfanyl, heterocycloalkylsulfanyl, (heterocycloalkyl)alkylsulfanyl, heteroarylsulfanyl, heteroarylalkylsulfanyl, alkylsulfinyl, alkylsulfonyl, aminocarbonyl, aminosulfonyl, alkylcarbonylamino, cycloalkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, arylcarbonylamino, aralkylcarbonylamino, (heterocycloalkyl)carbonylamino, (heterocycloalkyl)alkylcarbonylamino, heteroarylcarbonylamino, heteroaralkylcarbonylamino, alkoxycarbonylaminoalkylamino, (heteroaryl)arylcarbonylaminoalkylamino, heteroaralkylcarbonylaminoalkylamino, (heteroaryl)arylsulfonylaminoalkylcarbonylaminoalkylamino, arylsulfonylaminoalkylamino, alkoxycarbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, or carbamoyl;

m is 0, 1, 2, 3, or 4; provided that when  $m \geq 2$ , two adjacent  $R^1$  groups can join together to form a 4- to 8-membered optionally substituted cyclic moiety;

n is 0, 1, 2, or 3; provided that when  $n \geq 2$ , two adjacent  $R^2$  groups can join together to form a 4- to 8-membered optionally substituted cyclic moiety; and

each of  $R^x$  and  $R^y$  is independently hydrogen, alkyl, alkenyl, alkynyl, alkoxy, acyl, halo, hydroxy, amino, nitro, cyano, guanadino, amidino, carboxy, sulfo, mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, cycloalkylcarbonyl, (cycloalkyl)alkylcarbonyl, aroyl, aralkylcarbonyl, heterocycloalkylcarbonyl, (heterocycloalkyl)acyl, heteroaroyl, (heteroaryl)acyl, aminocarbonyl, alkylcarbonylamino, (amino)aminocarbonyl, alkylsulfonylamino, cycloalkylcarbonylamino, cycloalkylsulfonylamino, (cycloalkyl)alkylcarbonylamino, (cycloalkyl)alkylsulfonylamino, arylcarbonylamino, arylsulfonylamino, aralkylcarbonylamino, aralkylsulfonylamino, (heterocycloalkyl)carbonylamino, (heterocycloalkyl)sulfonylamino, (heterocycloalkyl)alkylcarbonylamino, (heterocycloalkyl)alkylsulfonylamino, heteroarylcarbonylamino, heteroarylsulfonylamino, heteroaralkylcarbonylamino, heteroaralkylsulfonylamino, alkoxycarbonyl, alkylcarbonyloxy, urea, thiourea, sulfamoyl, sulfamide, carbamoyl, cycloalkyl, cycloalkyloxy, cycloalkylsulfanyl, (cycloalkyl)alkyl, (cycloalkyl)alkoxy, (cycloalkyl)alkylsulfanyl, heterocycloalkyl, heterocycloalkyloxy, heterocycloalkylsulfanyl, (heterocycloalkyl)alkyl, (heterocycloalkyl)alkoxy,

(heterocycloalkyl)alkylsulfanyl, aryl, aryloxy, arylsulfanyl, aralkyl, aralkyloxy, aralkylsulfanyl, arylalkenyl, arylalkynyl, heteroaryl, heteroaryloxy, heteroaryl-sulfanyl, heteroaralkyl, (heteroaryl)alkoxy, or (heteroaryl)alkylsulfanyl; or a pharmaceutically acceptable salt [~~or N-oxide~~] thereof.

2. – 29. (Cancelled).

30. (Original) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

31. (Currently amended) A pharmaceutical composition comprising a compound of claim [[ 29 ]] -- 1 -- and a pharmaceutically acceptable carrier.

32. (Original) A method of inhibiting the TGF $\beta$  signaling pathway in a subject, the method comprising administering to said subject with an effective amount of a compound of claim 1.

33. (Currently amended) A method of inhibiting the TGF $\beta$  signaling pathway in a subject, the method comprising administering to said subject with an effective amount of a compound of claim [[ 29 ]] -- 1 --.

34. (Original) A method of inhibiting the TGF $\beta$  type I receptor in a cell, the method comprising the step of contacting said cell with an effective amount of a compound of claim 1.

35. (Currently amended) A method of inhibiting the TGF $\beta$  type I receptor in a cell, the method comprising the step of contacting said cell with an effective amount of a compound of claim [[ 29 ]] -- 1 --.

36. (Withdrawn) A method of reducing the accumulation of excess extracellular matrix induced by TGF $\beta$  in a subject, the method comprising administering to said subject an effective amount of a compound of claim 1.
37. (Withdrawn) A method of reducing the accumulation of excess extracellular matrix induced by TGF $\beta$  in a subject, the method comprising administering to said subject an effective amount of a compound of claim 29.
38. (Withdrawn) A method of treating or preventing fibrotic condition in a subject, the method comprising administering to said subject an effective amount of a compound of claim 1.
39. (Withdrawn) A method of treating or preventing fibrotic condition in a subject, the method comprising administering to said subject an effective amount of a compound of claim 29.
40. (Withdrawn) The method of claim 38 or 39, wherein the fibrotic condition is selected from the group consisting of scleroderma, lupus nephritis, connective tissue disease, wound healing, surgical scarring, spinal cord injury, CNS scarring, acute lung injury, idiopathic pulmonary fibrosis, chronic obstructive pulmonary disease, adult respiratory distress syndrome, acute lung injury, drug-induced lung injury, glomerulonephritis, diabetic nephropathy, hypertension-induced nephropathy, hepatic or biliary fibrosis, liver cirrhosis, primary biliary cirrhosis, fatty liver disease, primary sclerosing cholangitis, restenosis, cardiac fibrosis, ophthalmic scarring, fibrosclerosis, fibrotic cancers, fibroids, fibroma, fibroadenomas, fibrosarcomas, transplant arteriopathy, and keloid.
41. (Withdrawn) A method of inhibiting metastasis of tumor cells in a subject, the method comprising administering to said subject an effective amount of a compound of claim 1.

42. (Withdrawn amended) A method of inhibiting metastasis of tumor cells in a subject, the method comprising administering to said subject an effective amount of a compound of claim ~~[[ 29]]~~ -- 64 --.
43. (Withdrawn) A method of treating a disease or disorder mediated by an overexpression of TGF $\beta$ , the method comprising administering to a subject in need of such treatment an effective amount of a compound of claim 1.
44. (Withdrawn amended) A method of treating a disease or disorder mediated by an overexpression of TGF $\beta$ , the method comprising administering to a subject in need of such treatment an effective amount of a compound of claim ~~[[ 29]]~~ -- 64 --.
45. (Withdrawn) The method of claim 43 or claim 44, said disease or disorder being selected from the group consisting of demyelination of neurons in multiple sclerosis, Alzheimer's disease, cerebral angiopathy, squamous cell carcinomas, multiple myeloma, melanoma, glioma, glioblastomas, leukemia, and carcinomas of the lung, breast, ovary, cervix, liver, biliary tract, gastrointestinal tract, pancreas, prostate, and head and neck.
46. (Previously presented) The compound of claim 1, wherein each of X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, and X<sub>4</sub> is independently CR<sup>x</sup>,  
each R<sup>x</sup> is independently hydrogen.
47. (Previously presented) The compound of claim 46, wherein  
m is 0, 1 or 2.
48. (Previously presented) The compound of claim 47, wherein  
both Y<sub>1</sub> and Y<sub>2</sub> are N.
49. (Previously presented) The compound of claim 48 wherein  
each R<sup>1</sup> is independently unsubstituted alkyl, hydroxyalkyl, haloalkyl, aminoalkyl, aryloxyalkyl, heteroaralkyloxyalkyl, unsubstituted alkenyl, alkoxy, acyl,

halo, hydroxy, carboxy, cyano, guanadino, amidino, -NH<sub>2</sub>, monoalkylamino, dialkylamino, monocycloalkylamino, monoheterocycloalkylamino, monoheteroaryl-amino, mono(heterocycloalkyl)amino, mono(aralkyl)amino, mono(heteroaralkyl)amino, -N(alkyl)(cycloalkyl), mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, -CONH<sub>2</sub>, -CONH(alkyl), -CO-N(alkyl)<sub>2</sub>, -NH-CO-alkyl, -N(alkyl)-CO-alkyl, -CO<sub>2</sub>-alkyl, -O-CO-alkyl, -SO<sub>2</sub>-NH<sub>2</sub>, -SO<sub>2</sub>-NH(alkyl), -SO<sub>2</sub>-N(alkyl)<sub>2</sub>, cycloalkyl, heterocycloalkyl, or heteroaryl.

50. (Previously presented) The compound of claim 49,

wherein n is 1 or 2 and R<sup>2</sup> is independently and each R<sup>2</sup> is independently unsubstituted alkyl, hydroxyalkyl, haloalkyl, aminoalkyl, aryloxyalkyl, heteroaralkyloxyalkyl, alkoxy, acyl, halo, hydroxy, carboxy, cyano, guanadino, amidino, -NH<sub>2</sub>, monoalkylamino, dialkylamino, monocycloalkylamino, monoheterocycloalkyl-amino, monoheteroaryl-amino, mono((heterocycloalkyl)alkyl)amino, mono(heteroaralkyl)amino, -N(alkyl)(cycloalkyl), mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, -CONH<sub>2</sub>, -CONH(alkyl), -CO-N(alkyl)<sub>2</sub>, -NH-CO-alkyl, -N(alkyl)-CO-alkyl, -CO<sub>2</sub>-alkyl, -O-CO-alkyl, -SO<sub>2</sub>-NH<sub>2</sub>, -SO<sub>2</sub>-NH(alkyl), -SO<sub>2</sub>-N(alkyl)<sub>2</sub>, -NH-SO<sub>2</sub>-alkyl, -N(alkyl)-SO<sub>2</sub>-alkyl, -NH-CO-NH(alkyl), -N(alkyl)-CO-NH(alkyl), -NH-SO<sub>2</sub>-NH(alkyl), -N(alkyl)-SO<sub>2</sub>-NH(alkyl), heterocycloalkyl, or heteroaryl.

51. (Previously presented) The compound of claim 50, wherein,

each R<sup>1</sup> is independently unsubstituted alkyl, hydroxyalkyl, haloalkyl, aminoalkyl, aryloxyalkyl, heteroaralkyloxyalkyl, unsubstituted alkenyl, alkoxy, acyl, halo, hydroxy, carboxy, cyano, guanadino, amidino, amino, carboxy, mercapto, alkylsulfanyl, alkylsulfinyl, alkylsulfonyl, aminocarbonyl, alkylcarbonylamino, alkoxycarbonyl, alkylcarbonyloxy, alkylsulfonyl, sulfamoyl, cycloalkyl, heterocycloalkyl, (heterocycloalkyl)alkyl, heteroaryl, or heteroaralkyl.

52. (Previously presented) The compound of claim 51, wherein,

wherein n is 1 and each R<sup>2</sup> is independently guanadino, amidino, -NH<sub>2</sub>, monoalkylamino, dialkylamino, monocycloalkylamino, monoheterocycloalkylamino,

monoheteroaryl amino, mono((heterocycloalkyl)alkyl) amino, mono(heteroalkyl) amino, -NH-CO-NH(alkyl), -N(alkyl)-CO-NH(alkyl), -NH-SO<sub>2</sub>-NH(alkyl), -N(alkyl)-SO<sub>2</sub>-NH(alkyl), heterocycloalkyl, or heteroaryl.

53. (Previously presented) The compound of claim 50, wherein wherein R<sup>2</sup> is substituted at the 3-position.
54. (Previously presented) A compound of claim 52, selected from, 4-(2-pyridin-2-yl-pyrazolo[1,5-a]pyridin-3-yl)-pyrimidin-2-ylamine, 4-[2-(6-methyl-pyridin-2-yl)-pyrazolo[1,5-a]pyridin-3-yl]-pyrimidin-2-ylamine, 2-(6-methyl-pyridin-2-yl)-3-(2-methylsulfanyl-pyrimidin-4-yl)-pyrazolo[1,5-a]pyridine, 4-[2-(6-chloro-pyridin-2-yl)-pyrazolo[1,5-c]pyrimidin-3-yl]-pyrimidin-2-ylamine, 2-(6-methyl-pyridin-2-yl)-3-(2-morpholin-4-yl-pyrimidin-4-yl)-pyrazolo[1,5-c]pyrimidine, 4-[2-(6-methyl-pyridin-2-yl)-pyrazolo[1,5-a]pyrazin-3-yl]-pyrimidin-2-ylamine, 4-[2-(6-methyl-pyridin-2-yl)-pyrazolo[1,5-a]pyrimidin-3-yl]-pyrimidin-2-ylamine, 4-[2-(6-methyl-pyridin-2-yl)-pyrazolo[1,5-c]pyrimidin-3-yl]-pyrimidin-2-ylamine, or a pharmaceutically acceptable salt.